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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

CREPEAU, JONATHAN

ART UNIT PAPER NUMBER

1746

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,497

Applicant(s)

TAJIMA, OSAMU

Examiner

Jonathan S. Crepeau

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7,9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 8 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/30/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action addresses claims 1-10. Claims 1-3, 5-7, and 9 are supported by the priority document and the rejections over Gyoten are withdrawn. As such, claims 6, 7, 9, and 10 are allowed, and claims 3 and 4 contain allowable subject matter. Claim 8, which is not supported by the priority document translation, remains rejected under 35 USC §103 over Gyoten. Claims 1, 2 and 5 are newly rejected under 35 USC §102 and §103. As such, this action is non-final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (U.S. Patent 5,985,474). The reference teaches a fuel cell apparatus comprising a water tank (300) disposed in the air supply path to the fuel cell (see Fig. 7). The water in the tank is capable of washing the incoming air and is replaced depending upon the usage of the hot water in the building (see Fig. 7; col. 9, line 7). This is considered to be a “means for periodically replacing the washing liquid” as recited in claim 1.

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al.

The reference is applied to claims 1 and 2 as stated above. However, the reference does not expressly teach that the water supplied to the hot water tank is “treated.”

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because using a “treated” water in the hot water tank would provide high purity water for use in the building and for humidifying the fuel cell air. The mere purity of a product, by itself, is generally not sufficient to render the product unobvious. *Ex parte Gray*, 10 USPQ2d 1922 (Bd. Pat. App. & Inter. 1989).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gyoten et al (U.S. Patent 6,638,655) in view of JP 6-296817.

In column 8, line 11, Gyoten teaches a fuel cell apparatus comprising a fuel cell stack, a bubbler tank (i.e., washing liquid tank) containing distilled water that purifies and humidifies an air supply, and a condenser. As disclosed in column 8, line 22, the condensed water is supplied to the bubbler tank in order to prevent the tank from running out of water. This is considered to be anticipatory of the “means for replacing the washing liquid reserved in said washing liquid tank” recited in claim 6.

However, the reference does not expressly teach that the condenser comprises or is associated with a “tank” as recited in claim 6, or that the water is replaced according to the dirtiness of the washing liquid (claim 8).

However, the recitation of a “water tank” would be rendered obvious by the disclosure of Gyoten. Steam condensers are often associated with downstream tanks or reservoirs for catching and storing the condensed water. As such, this recitation in claim 6 would be rendered obvious.

JP ‘817 is directed to an air purification apparatus (see abstract). A water contamination detection sensor measures the contamination of the water in a tank and orders the water discharged and new water introduced when the contamination reaches a predetermined level.

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use the contamination sensor of JP ‘817 in the system of Gyoten et al. In the abstract, JP ‘817 teaches that the control of the water replacing period is “properly” performed by this apparatus. As such, the artisan would be motivated to contamination sensor of JP ‘817 in the system of Gyoten et al.

Allowable Subject Matter

6. Claims 6, 7, 9, and 10 are allowed.
7. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:

Claim 6 recites a water tank and a washing liquid tank, among other features. As Gyoten is disqualified as prior art against claim 6, the closest prior art is Chen et al. However, Chen et al. does not teach or fairly suggest the claimed second water tank. As such, claim 6 is allowable.

Claim 3 recites, among other features, a plurality of washing liquid tanks in series. This feature is also not taught or fairly suggested by Chen et al. As such, claim 3 contains allowable subject matter.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. C. W.

Jonathan Crepeau
Primary Examiner
Art Unit 1746
February 11, 2005

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